

**CLAIMS**

1. A method for treating a weathered low volume asphalt surface comprising the steps of:
  - providing a composition comprising a solution, emulsion or dispersion of a polymer binder material, particulate material and rheology modifiers ,
  - wherein the composition is essentially free of bituminous components and is essentially free of cement; and
  - applying the composition to the asphalt surface.
2. The method of claim 1, wherein the composition is applied to the asphalt surface using high volume, low pressure (HVLP) equipment.
3. The method of claim 1, wherein the composition is applied to the asphalt surface using a mechanised squeegee or slurry machine.
4. The method of claim 1, wherein the solution, emulsion or dispersion of a polymeric material includes at least one polymeric material that forms a film upon setting.
5. The method of claim 4, wherein the polymeric material is an aqueous dispersion of an acrylic polymer or copolymer.
6. The method of claim 1 or 5 wherein the particulate material is at least one material selected from the group of sand, mineral aggregates, rubber particles or a mixture of two or more materials.
7. The method of claim 1, wherein the composition forms a shear thinning formulation characterised by a markedly reduced viscosity when the formulation is subject to shear forces.
8. The method of claim 7, wherein the shear thinning formulation exhibits a reduction in viscosity as the formulation is applied by spraying and increases in viscosity after application.
9. The method of claim 7, wherein the composition exhibits a decrease in viscosity of at least two orders of magnitude when subjected to a shear rate increase from 1-2000 l/s

10. The method of claim 6, wherein the particulate material is rubber particles, having a maximum particle size of less than 500  $\mu\text{m}$ .
11. The method of claim 6, wherein the particulate material is rubber particles having a maximum particle size of less than 250 $\mu\text{m}$ .
- 5 12. The method of claim 1, wherein the composition is applied to a depth such that any protruding aggregate in the asphalt surface is substantially not covered by the composition.
13. The method of claim 1, wherein the application rate of the composition to the asphalt surface will result in a coating thickness between about 200 to 300 $\mu\text{m}$
- 10 being applied to the asphalt surface.
14. A composition for treating a weathered low traffic volume asphalt surface comprising:
- a solution, emulsion or dispersion of a polymeric material, particulate material and rheology modifiers;
- 15 wherein the composition is essentially free of cement and is essentially free of bituminous components.
15. The composition of claim 14, wherein the solution, emulsion or dispersion of a polymeric material includes at least one polymeric material that forms a film upon setting.
- 20 16. The composition of claim 14, wherein the polymeric material is an aqueous emulsion of an acrylic polymer or copolymer.
17. The composition of claim 14, wherein the composition is a shear thinning formulation characterized by a markedly reduced viscosity when the formulation is subject to shear forces.
- 25 18. The composition of claim 17, wherein the shear thinning formulation exhibits a marked reduction in viscosity as the formulation is applied by spraying and increases in viscosity after application.
19. The composition of claim 17 wherein the composition exhibits a decrease in viscosity of at least two orders of magnitude when subjected to a shear rate
- 30 increase from 1-2000 l/s.

20. The composition of claim 14, wherein the particulate material is rubber particles having a maximum particle size of less than 500  $\mu\text{m}$ .

21. The composition of claim 14, wherein the particulate material is rubber particles having a maximum particle size of less than 250 $\mu\text{m}$ .